

REMARKS

I. Status of the Claims

Claims 12, 13, 15-17, 20-23 and 25-28 are pending and stand rejected. This response includes no claim amendments, new claims, or cancellation of existing claims.

II. Rejections under 35 U.S.C. § 103(a)

Claims 12, 13, 15, 20-23, 25 and 27-28 stand rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over U.S. Patent Application Publication No.

US2003/0011332 A1 to *Mays, II*. Applicant disagrees with this rejection. For *Mays, II* to render the claims obvious, *Mays, II* must teach or suggest all elements of the claims. *Mays, II* does not teach or suggest a number of elements of the claims.

Mays, II reports a "fan control circuit" (paragraph 0044) that includes "An optional temperature sensor [which] may be included within the fan control circuit to provide the capability of ascertaining a localized temperature *within the fan module*." (Paragraph [0044]) (emphasis added). The temperature sensor may allow *the temperature of the fan* or the *temperature of the air flow* through the fan to be reported back to a host system when the host system queries regarding those variables. (Paragraph [0023]). A fan control circuit of *Mays, II* is shown in Figure 4 of that patent.

Mays, II does not teach or suggest all of the limitations of claim 12 of this application or of those claims that depend from claim 12. Claim 12 requires "a temperature monitoring device and a switching device connected in parallel with the control element, the circuitry configured to detect and respond to a fault in the fan unit by

bypassing the control unit through connecting a switching device to power the fan unit at full operating voltage when a board temperature is greater than a board limit temperature, the temperature monitoring device comprising a sensor diode integrated circuit on an electronic component of the respective board." *Mays, II* does not teach any of those elements.

In *Mays, II* the temperature monitoring device only reports the temperature of the fan or the air flowing through fan. *Mays, II* does not state that the temperature of a board is determined. *Mays, II* does not teach inclusion of a sensor on the board that is served by the controlled fan. This arrangement has the clear advantage of allowing an accurate temperature of the board to be determined, thereby allowing the fan to be actuated no matter the temperature of the fan or the air surrounding the fan.

Mays, II does not teach that the control unit is bypassed and the fan unit is operated at full operating voltage when a board temperature is greater than a board limit temperature. Instead, *Mays, II* requires that the temperature value be reported to an intermediary. *Mays, II* does not state that this intermediary (labeled 134 in Figure 4 of *Mays, II*) gives *any* instructions related to temperature. Even if the command interpreter of *Mays, II* did provide these instructions, that would be significantly different from the claimed invention in which instructions are sent directly from the temperature sensor through the switching devices to the fan unit without necessary recourse to an external control.

That the claimed invention is different from *Mays, II* is demonstrated in paragraph [0024] of *Mays, II*, which states, "All speed control, as well as on/off control,

is communicated to the fan via the serial interface" This shows that the temperature sensor of *Mays, II* does not act to alter the voltage of the fan as is indicated in the claimed invention. Moreover, *Mays, II* does not teach or suggest altering the voltage to allow full operating voltage to be sent to the fan unit in the event of a board temperature greater than a board limit temperature.

Applicant objects to characterization of the integration of the sensor diode on the electronic component of the respective board as obvious. There is no teaching in the art that has been offered to show that the temperature sensor directly incorporated into a board that will actuate fan cooling based on the results of that temperature sensor.

Claims 16, 17 and 26 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Mays, II* as applied to claim 12 and further in view of United States Patent No. 6,018,456 to *Young, et al.* For the reasons given above, *Mays, II* fails to render the claimed invention obvious because multiple limitations are neither taught nor suggested by *Mays, II*. Those same limitations are not taught or suggested by *Young, et al.* Because *Young, et al.* does not remedy the deficiencies in *Mays, II*, *Mays, II* in combination with *Young, et al.* does not render the claims of the application obvious anymore than does *Mays, II* alone.

For the reasons given above, the rejection of the claims under 35 U.S.C. § 103(a) based on *Mays, II* either alone or in combination with *Young et al.* is improper. The rejection should be withdrawn and the claims allowed.

Based on the above argument all of the rejections are believed to have been accommodated or rendered moot. Withdrawal of the rejections and allowance of the

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claims are requested. If a telephone conference would help resolve any further issues in this application or might lead to allowance of one or more claims, the Examiner is invited to call the number below.

Respectfully submitted,

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